

AMENDATORY SECTION (Amending WSR 99-16-083, filed 8/3/99, effective 11/3/99)

WAC 296-79-220 Deactivating and lockout requirements. (1) Control requirement. Whenever the unexpected startup of machinery, the energizing of electrical circuits, the flow of material in piping systems or the removal of guards would endanger workers, such exposure must be prevented by deactivating and locking out the controls as required by chapter ((296-24 WAC, Part A-4)) 296-803 WAC, Lockout/tagout (control of hazardous energy).

EXCEPTION: In instances where any machine must be in motion for proper adjustment, for removal or replacement of materials from the machine, for machine clothing changes or for roping up, the following precautions must be observed:

- ✎ The machine must be operated at thread or jog speed;
- ✎ Extension tools which minimize personnel exposure must be used where possible;
- ✎ The operating controls must at all times be under the control of a qualified operator or craftsman;
- ✎ All personnel must remain in view of the operator or other means of communication shall be established;
- ✎ All personnel must be beyond the reach of other machine section(s) or element(s) which offer potential exposure. In any instance where such potential exposure exists, such other section(s) or element(s) must be separately locked out.

(2) Group lockout or tagout devices. Procedures must meet the minimum requirements of chapter ((296-24 WAC, Part A-4)) 296-803 WAC, Lockout/tagout (control of hazardous energy). The employer must develop a specific written group lockout or tagout procedure and review it with the local plant labor/management safety committee before it can be utilized.

(3) Temporary or alternate power.

✎ Whenever possible, temporary or alternate sources of power to the equipment being worked on must be avoided.

✎ If the use of such power is necessary, all affected employees must be informed and the source of temporary or alternate power must be identified.

(4) Deactivating piping systems.

(a) Nonhazardous systems must be deactivated by at least locking out either the pump or a single valve.

(b) Lockout of the following hazardous material piping systems must isolate to the worksite and must provide protection against backflow where such potential exists:

- ✎ Gaseous systems that are operated at more than 200 psig;

- ✎ Systems containing any liquid at more than 500 psig;
- ✎ Systems containing any material at more than 130°F;
- ✎ Any cryogenic system,
- ✎ Systems containing material which is chemically hazardous as defined by NFPA 704 1996 Class 3 and 4;

- ✎ Systems containing material classified as flammable or explosive as defined in NFPA Class I.

Such systems must be deactivated by one of the following:

- ✎ Locking out both the pump and one valve between the pump and the worksite;

- ✎ Locking out two valves between the hazard source and the worksite;

- ✎ Installing and locking out a blank flange between the hazard source and worksite. When a blank flange (blind) is used to separate off portions of hazardous material systems from a portion which is in operation, the employer must develop and implement a procedure for installation and removal of the blank flange that will ensure all hazards have been eliminated;

- ✎ Line breaking between the hazard and the worksite;

- ✎ On hazardous chemical systems where the methods already listed are not feasible, or by themselves create a hazard, single valve closure isolation may be used provided that potentially exposed employees are adequately protected by other means such as personal protective equipment.

- ✎ On all steam systems where the methods already listed are not feasible, single valve closure isolation may be used provided that the system is equipped with valves meeting all requirements of ANSI B16.5-1996 and ANSI B16.34-1996. Where single valve isolation is used, the steamline must also be equipped with a bleed valve downstream from the valve closure to prove isolation of the worksite.

Note: Bleeder valves are recommended behind all primary valve closures on hazardous material systems. Consideration should be given to the nature of the material in the system when installing bleeder valves. To assist in preventing plugging, bleeder valves should generally be installed in the top one-third of the pipe. Short exhaust pipes should be installed on bleeder valves to direct the flow of possible escapement away from the position where an employee would normally be when using the bleeder valve.